

EXHIBIT A

AMERICAN HONDA MOTOR CO., INC.'S EXHIBIT LIST

EX #		OBJECTIONS	OFFERED	ADMITTED
1.	Subject 2020 Honda Odyssey and all components			
2.	Exemplar 2020 Honda Odyssey			
3.	Subject 2018 Dodge Charger			
4.	Plaintiffs Complaint for ID			
5.	Plaintiffs Amended Complaint for ID			
6.	South Carolina Highway Patrol records & Trooper Ham Depo Ex2-4 a. Report, Ticket, Audio/Video, Admin Report b. 178 Photos c. Call History Record d. Crash Report	(a, c, and d) SCHP 000001-000013 SCHP 000192-000200 SCHP 000201-000202 Objection as to inadmissible hearsay		
7.	South Carolina Department of Public Safety 911 records	000001-000022 Objection as to inadmissible hearsay		
8.	Irmo Fire Department records & D. Boyce Depo EX 1	000001 Objection as to inadmissible hearsay		
9.	Lexington EMS records and S. Goldiner Depo EX 5	000001-000008 Objection as to inadmissible hearsay		
10.	Allstate records for Carban Epps	000001-000014 These exhibits involve auto insurance for the parties involved and insurance for parties outside this litigation. Evidence that a person was or was not insured is not admissible		
11.	Liberty Mutual records	000001-000771 These exhibits involve auto insurance for the parties involved and insurance for parties outside this litigation. Evidence that a person was or was not insured is not admissible		

EX #		OBJECTIONS	OFFERED	ADMITTED
12.	2020 Honda Odyssey EDR/CDR Report	Objection; as to irrelevant hearsay portions regarding speeds pending the Court's ruling on Plaintiffs Motion <i>in Limine</i> as regards admissibility of speeds		
13.	2018 Dodge Charger EDR/CDR Report	Objection; as to irrelevant hearsay portions regarding speeds pending the Court's ruling on Plaintiffs Motion <i>in Limine</i> as regards admissibility of speeds		
14.	37 (JPG) Photos produced by plaintiff			
15.	Post accident Photos produced by plaintiff	MR_Assey000013		
16.	Post accident Photos produced by plaintiff	MR_Assey000052-000839		
17.	Photos of plaintiffs from June 2016-2021	MR_Assey001717-001756		
18.	Midlands records	001-009 Objection as to inadmissible hearsay		
19.	Phil Hughes Honda records	001-055 Objection as to inadmissible hearsay		
	<i>Honda Production</i>			
	<i>Test Reports - CONFIDENTIAL</i>			
20.	QB18Z0380012 Front Offset Deformable Barrier 64 km/h AM50%Belted	AHM011037-11069		
21.	QB18Z0380013 Front Flat Barrier 56km/h Driver: AM50%; Pass: AF5% Belted	AHM011070-11102		
22.	QB18Z0380015 Right 30° Angled Barrier 48km/h	AHM011103-11116		
23.	QB18Z0380016 Left 30° Angled Barrier 48km/h	AHM011117-11130		
24.	QB18Z0380017 Front Flat Barrier 56km/h: AM 95% Dummy Damage to Restraint System	AHM011131-11162		

EX #		OBJECTIONS	OFFERED	ADMITTED
25.	QB18Z0380020 Front Small Overlap 64km/h AM50 Belted	AHM011163-11184		
26.	QB18Z0380063 Front Offset Deformable Barrier 64km/h AM50% Belted	AHM011185-11217		
27.	QB18Z0380064 Front Flat Barrier 56km/h Driver: AM 50% Belted; Pass: AF5% Belted	AHM011218-11250		
28.	QB18Z0380066 Front Flat Barrier 56km/h Driver: AF5% Belted; Pass: AM50% Belted	AHM011251-11283		
29.	QB18Z0380069 Front Flat Barrier Dual Output Inflator Upper Limit Speed: AM50% Belted	AHM011284-11295		
30.	QB18Z0380071 Front Flat Barrier Dual Output Inflator Upper Limit Speed: AF5% Belted	AHM011296-11307		
31.	QB18Z0380073 Front Offset Deformable Barrier 40km/h Driver: AF5% Belted	AHM011308-11335		
32.	QB18Z0380074 Right 30° Angled Barrier 48km/h	AHM011336-11349		
33.	QB18Z0380076 Left 30° Angled Barrier 48km/h	AHM011350-11363		
34.	QB18Z0380085 (301 L #3615) US RR MDB 80 km/h L-Side	AHM005374-5400		
35.	QB18Z0380086 (301 R) US RR MDB 80 km/h R-Side	AHM005401-5427		
36.	QB18Z0380092 US White Body Strength- Seatbelt Anchorage Strength	AHM005428-5516		
37.	QB18Z0380102 US Strength and Performance of Seat Parts - Headrest Retention (FMVSS 202a) C.Kracht Depo EX 22	AHM005517-5608		
38.	QB18Z0380103 US Seating System	AHM005609-5680		
39.	QB18Z0380104 US Impact to Seatback Brian O'Hara Depo EX 25	AHM005681-5691		
40.	QB18Z0380105 US Seat Strength in Rear-End Collision Brian O'Hara Depo EX 24	AHM005692-5697		
41.	QB18Z0380106 US Strength and Performance of Seat Parts - NIR Head Restraint Performance (11 km/h)	AHM005698-5740		
42.	QB18Z0380114 Seatbelt	AHM011453-11579		

EX #		OBJECTIONS	OFFERED	ADMITTED
43.	QB18Z0380115 Seatbelt, Marketability & Function	AHM011580-11657		
44.	QB18Z0380130 US White Body Strength - Strength of Partition Wall	AHM005741-5766		
45.	QB18Z0380131 Front Small Overlap 64km/h AM50 Belted	AHM011658-11681		
46.	QB18Z0380132 IIHS RR Crash Protection	AHM005767-5809		
47.	QB21Z0380014 Front Offset Deformable Barrier 64km/h DR: AM50% Belted	AHM011682-11694		
48.	QB21Z0380015 Front Flat Barrier 56km/h Driver: AM50% Belted; Pass: AF5% Belted	AHM011695-11707		
49.	QB21Z0380016 Left 30° Angled Barrier 48km/h	AHM011708-11720		
50.	QB21Z0380021 Seatbelt	AHM011721-11739		
51.	QB21Z0380022 Seatbelt, Marketability & Function	AHM011740-11759		
52.	QB21Z0380023 US Strength and Performance of Seat Parts - Headrest Retention (FMVSS 202a)	AHM005810-5815		
53.	QB21Z0380024 US Strength and Performance of Seat Parts - NIR Head Restraint Performance (11km/h)	AHM005816-5820		
	<i>Test Videos - CONFIDENTIAL</i>			
54.	Test Video-QB18M0380012	AHM011760		
55.	Test Video-QB18M0380013	AHM011761		
56.	Test Video-QB18M0380015	AHM011762		
57.	Test Video-QB18M0380016	AHM011763		
58.	Test Video-QB18M0380017	AHM011764		
59.	Test Video-QB18M0380020	AHM011765		
60.	Test Video-QB18M0380063	AHM011766		
61.	Test Video-QB18M0380064	AHM011767		
62.	Test Video-QB18M0380066	AHM011768		
63.	Test Video-QB18M0380069	AHM011769		
64.	Test Video-QB18M0380071	AHM011770		
65.	Test Video-QB18M0380073	AHM011771		
66.	Test Video-QB18M0380074	AHM011772		
67.	Test Video-QB18M0380076	AHM011773		
68.	Test Video-QB18M0380085 (301 L)	AHM000001		
69.	Test Video-QB18M0300086 (301 R)	AHM000002		
70.	Test Video-QB18M0380102	AHM000003		
71.	Test Video-QB18M0380106	AHM000004		

EX #		OBJECTIONS	OFFERED	ADMITTED
72.	Test Video-QB18M0380130	AHM000005		
73.	Test Video-QB18M0380131	AHM011774		
74.	Test Video-QB18M0380132 IIHS	AHM000006		
75.	Test Video-QB21M0380014	AHM011775		
76.	Test Video-QB21M0380015	AHM011776		
77.	Test Video-QB21M0380016	AHM011777		
	<i>Other</i>			
78.	Parts List Brian O'Hara Depo EX 17	AHM0000007-15		
	<i>A-REQ - CONFIDENTIAL</i>			
79.	List of A Req QB18B0380002	AHM000016-31		
80.	QB18B0380079 US Rear impact Rear MDB 80 km/h L-side Occupant Protection	AHM000032		
81.	QB18B0380080 US Rear impact Rear MDB 80 km/h L-side Occupant rescuability	AHM000033		
82.	QB18B0380082 US Rear impact Rear MDB 80 km/h R-side Occupant Protection	AHM000034		
83.	QB18B0380083 US Rear impact Rear MDB 80 km/h R-side Occupant rescuability	AHM000035		
84.	QB18B0380117 US W/body strength W/body strength Seatbelt anchorage strength	AHM000036-37		
85.	QB18B0380122 US White body strength White body strength of partition wall	AHM000038		
86.	QB18B0380135 US Seat & seatbelt performance System check	AHM000039-41		
87.	QB18B0380136 US Seat seatbelt Seat parts strength and performance Headrest retention front seat Dynamic test	AHM000042		
88.	QB18B0380143 US Seat & seatbelt performance Strength and performance of seat parts Seating systems	AHM000043		
89.	QB18B0380144 US Seat & seatbelt performance of seat parts Impact to seatback	AHM000044		
90.	QB18B0380145 US Seat & seatbelt performance Strength and performance of seat parts Seat strength in rearend collision C.Kracht Depo EX 18	AHM000045		
91.	QB18B0380146 US Seat seatbelt Seat parts strength and performance NIR head restraint performance (11km/h)	AHM000046		

EX #		OBJECTIONS	OFFERED	ADMITTED
92.	List of A Req QB21B0380002	AHM000047-62		
93.	US Seat seatbelt Seat parts strength and performance NIR head restraint performance QB21B0380015	AHM000063		
94.	List of A Req QB23B0380002	AHM000064-79		
95.	QB18B0380003-E US FR collision FR ODB 64km/h Occupant protection	AHM010983		
96.	QB18B0380006-E US FR collision FR flat barrier 56km/h Occupant protection	AHM010984		
97.	QB18B0380012-E US seat & seatbelt performance FR barrier 56km/h Damage to restraint system by AM95% (FR seats) sled	AHM010985		
98.	List of A Req QB18B0380031	AHM010986-11001		
99.	QB18B0380032-E US FR collision FR ODB 64km/h Occupant protection	AHM011002		
100.	QB18B0380040-E US FR collision FR flat barrier 56km/h Occupant protection	AHM011003		
101.	QB18B0380042-E US FR collision FR flat barrier 40km/h Occupant protection	AHM011004		
102.	QB18B0380044-E US FR collision FR flat barrier 40km/h Occupant protection	AHM011005		
103.	QB18B0380052-E US FR collision FR ODB 40km/h Occupant protection	AHM011006		
104.	QB18B0380055-E US FR collision FR R30 deg barrier 40km/h Occupant protection	AHM011007		
105.	QB18B0380059-E US FR collision FR L30 deg barrier 40km/h Occupant protection	AHM011008		
106.	QB18B0380129-E Perf & comfort	AHM011009-11011		
107.	QB18B0380130-E CRS locking perf	AHM011012-11013		
108.	QB18B0380131-E Ease of extraction/Ease of retraction	AHM011014-11016		
109.	QB18B0380132-E Belt fitting	AHM011017-11022		
110.	QB18B0380133-E Marketability Op feeling/Belt fitting feeling/Noise	AHM011023-11028		

EX #		OBJECTIONS	OFFERED	ADMITTED
111.	QB18B0380134-E Durability	AHM011029-11030		
112.	QB21B0380012-E Perf of seatbelt/Buckle position/Belt fit	AHM011031-11033		
113.	QB21B0380013-E Belt fastening	AHM011034-11035		
114.	QB21B0380014-E Headrest retention FR row Dynamic	AHM011036		
	<i>Drawings - CONFIDENTIAL</i>			
115.	SPEC,GENERALHEADREST ASSY #8103Z-TBA-G101 C.Kracht Depo EX 21	AHM000612-614		
116.	SPEC,FR SEAT ASSY (PERFORMANCE) #8103Z-THR-A012M1	AHM000615-627		
117.	SPEC,FR SEAT ASSY (STRENGTH) #8104Z-TBA-A000	AHM000718-722		
118.	SPEC,FR SEAT ASSY(SAFETY) #8105Z-THR-A000 C.Kracht Depo EX 17 Brian O'Hara Depo EX 18	AHM000724-734		
119.	PRELIMINARY SPEC #8140Z-S0A-0000 (E)	AHM001525-1536		
120.	SPEC,SEAT BELT PRETENSIONER #8140Z-SEA-0030 (E)	AHM001551-1556		
121.	SPEC, FOR SEAT BELT REGULATION (FMVSS) #8140Z-SLN-A000 (E)	AHM001563-1566		
122.	SPEC, FOR SEAT BELT PERFORMANCE #8140Z-SMA-0000 (E)	AHM001570-1586		
123.	SPEC, SEAT BELT SPECIFICATION FOR PRETENSIONER #8140Z-T0A-0030 (J)	AHM001603-1626		
124.	SPEC, SEAT BELT SPECIFICATION FOR PERFORMANCE #8140Z-THR-0000 (E)	AHM001627-1680		
125.	SPEC, SEAT BELT SPECIFICATION FOR REGULATION #8140Z-THR-A0000 (E)	AHM001681-1696		
126.	SPEC, SEAT BELT SPECIFICATION FOR PRETENSIONER #8140Z-TLA-A111M1 (E)	AHM001697-1723		
127.	SPEC, FOR SEAT BELT PERFORMANCE #8140Z-TR0-0000 (E)	AHM001751-1804		

EX #		OBJECTIONS	OFFERED	ADMITTED
128.	DWG FR SEAT ASSY #81100-THR-ZZ15M1 C.Kracht Depo EX 2 B. O'Hara Depo EX 6	AHM002797-2805		
129.	HEAD REST ASSY FR SEAT #81140-THR-ZY10M1	AHM003091-3094		
130.	HEAD REST ASSY FR SEAT #81140-THR-ZY11M1	AHM003095-3098		
131.	DWG FR SEAT HEAD REST #81140-THR-ZZ12M1 Brian O'Hara Depo EX 14	AHM003099-3101		
132.	DWG FR SEAT HEAD REST 81140-THRA-ZZ10M1 C.Kracht Depo EX 10	TSTech000074		
133.	THRA F DAN DWG D/C List C.Kracht Depo EX 12			
134.	GUIDE FREE HEAD REST #81143-T2F-A010MI Brian O'Hara Depo EX 15	AHM003102		
135.	GUIDE FREE HEAD REST #81143-TF0-G012MI	AHM003103		
136.	GUIDE FREE HEAD REST #81143-T2F3-A010MI C.Kracht Depo EX 3	TSTech000123		
137.	GUIDE FREE HEAD REST #81143-T2FA-A010M1 C.Kracht Depo EX 4	TSTech000127		
138.	GUIDE COMP LOCK R/L HEAD REST #81144-T2F-A011-M1 Brian O'Hara Depo EX 16	AHM003104		
139.	GUIDE COMP LOCK HEAD REST #81144-RF0-G012M1	AHM003105		
140.	GUIDE COMP LOCK R/L, HEAD REST C.Kracht Depo EX 5	TSTech000130		
141.	DWG FR SEAT HEAD REST #81145-TK8-ZZ10M1	AHM003106-3107		
142.	HEAD REST, FR SEAT #81145-THR7-A410-MI-0004 C.Kracht Depo EX 6	TSTech000137		
143.	HEAD REST, FR SEAT #81145-UHRA-A010-M1-0000 C.Kracht Depo EX 7	TSTech000144		
144.	HEAD REST, FR SEAT #81145-THRA-A010-M1-0000 C.Kracht Depo EX 8	TSTech000337		

EX #		OBJECTIONS	OFFERED	ADMITTED
145.	HEAD REST, FR SEAT #81145-THRA-A010-M1-0003 C.Kracht Depo EX 9	TSTech000170		
146.	LUMBAR COMP FR SEAT #81190-TLA-A010M1	AHM003125-3126		
147.	LUMBAR COMP FR SEAT #81190-TLA-A0110M1	AHM003127-3128		
148.	DEVICE COMP R FR SEAT #81200-THR-A012M1	AHM003129-3133		
149.	RECLINING MOTOR ASSY #81202-TK4-A111M1	AHM003134		
150.	SLIDE COMP R FR SEAT #81210-TK8-A420M1	AHM003149-3152		
151.	REC COMP R FR SEAT (4WAY) #81211-TK8-A420M1	AHM003153-3158		
152.	DWG DEVICE COMP L FR SEAT (18-WAY) #81600-TK8-ZZ16M1	AHM003261-3270		
153.	Increasing length of PILLAR,FR HEAD TEST by 5mm for Poke-yoke #81146-THRA-A010M1 C.Kracht Depo EX 11	TSTech000116		
154.	PILLAR,FR HEAD REST Poke-Yoke Notch #81146-THRA-ZZ10M1 C.Kracht Depo EX 13	TSTech001152		
155.	DESIGN CHANGE DRAWING REQ HR Pillar poka-yoka C.Kracht Depo EX 14			
<i>Eva. - CONFIDENTIAL</i>				
156.	QB18Y0--0201-015 to 18 IIHS Rear Crash Protection Brian O'Hara Depo EX 26	AHM003892-95		
157.	QB18Y0--0228-026	AHM003896		
158.	QB18Y0--0234-018	AHM003897		
159.	QB18Y0--0234-019	AHM003898		
160.	QB18Y0--0234-020	AHM003899		
161.	QB18Y2—0096	AHM004615-4756		
162.	QB18Y2—0097	AHM004757-5114		
163.	QB18Y2—0098	AHM005115-5373		

EX #		OBJECTIONS	OFFERED	ADMITTED
164.	QB18Y2—0098 THRA-SR-P039 QB18Y2—0098 THRA-SR-P047 C.Kracht Depo EX 19	AHM005211-5215 AHM005216-5229		
165.	QB18Z0380102 C.Kracht Depo EX 22	AHM005517-5562		
	<i>CONFIDENTIAL</i>			
166.	MASS PROD SPEC. A1404467 (E) Brian O'Hara Depo EX 21	AHM006071-6073		
167.	MASS PROD SPEC. A1609437 (E) C.Kracht Depo EX 15 Brian O'Hara Depo EX 22	AHM006295-6298		
168.	MASS PROD SPEC. A1611401 (E) Brian O'Hara Depo EX 23	AHM006317-6321		
169.	List of A-REQ (QB18B0380031)	AHM006726-6741		
170.	Eval (CA16Y2 - - 0192-E)	AHM006742-7000		
	<i>TSTEP Crash Barrier Rear Raw Data</i>			
171.	THRA Rear Left 301 Deformable Barrier 2633 a.Measurements b.Photos c.PIC Pictures d.Videos	AHM007001 AHM007002-7043 AHM007044-7107 AHM007108-7119 Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial.		
172.	THRA Rear Left 301 Deformable Barrier 3506 a.Measurements b.Photos c.PIC Pictures d.Videos	AHM007120 AHM007121-7164 AHM007165-7239 AHM007240-7249 Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial.		

EX #		OBJECTIONS	OFFERED	ADMITTED
173.	THRA Rear Left 301 Deformable Barrier 3615 a.Measurements b.Photos c.PIC Pictures d.Videos e.Measurements-THRA L04 f.THRA 2_13_2017 g.THRA L04 Data Analysis	AHM007250 AHM007251-7290 AHM007291-7362 AHM007363-7374 AHM007375 AHM007376-7402 AHM007403 Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial.		
174.	THRA Rear Left 301 Deformable Barrier 2634 a.Photos b.PIC Pictures c.Videos d.Measurements-THRA R02 e.THRA 10_31_2016 f.THRA R02 Data Analysis	AHM007404-7447 AHM007448-7548 AHM007549-7559 AHM007560 AHM007561-7587 AHM007588 Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial.		
175.	Test Report Replacement # THRA (10-AT)-38-041	AHM005517-R-5608-R		
176.	Design Concept Sheet #8110z-THRA-A000	AHM007638-7699		
177.	Front Seat Concept Document	AHM007700-7774		
178.	TSTech Alabama, LLC C.Kracht Depo EX 16			
179.	Letter to Heath C.Kracht Depo EX 25	Objection; lack of relevance		
180.	Eric Pedersen's 3/30/23 VI Photos			
181.	Brian O'Hara Depo EX 7 – Seat Photo Label			

EX #		OBJECTIONS	OFFERED	ADMITTED
182.	Rear End Collision (25 kmh) a. THRA-SR-D093 (Kracht DepoEx23) b. THRA-SR-P018 (Kracht DepoEx24)	TSTech059886 TSTech059908		
183.	Rear End Collision (42kmh) a. THRA-SR-D005 b. THRA-SR-D094 c. THRA-SR-P039	TSTech059874 TSTech059887 TSTech059913 Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial.		
184.	TS Tech Videos a-j	TSTech019023 TSTech019335 TSTech019668 TSTech019980 TSTech048365 TSTech048866 TSTech049411 TSTech049912 TSTech054584 TSTech055085 Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial.		
185.	Owner's Manual	MR Assey000921		
186.	Geoffrey Germane, Ph.D., PE CV -for ID			
187.	GE Trial PowerPoint: Compilation of other exhibits	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial; D194 contains ID only articles and papers and		

EX #		OBJECTIONS	OFFERED	ADMITTED
		as such are inadmissible. D196 is a deposition transcript and as such is inadmissible		
188.	<p>Crash Mechanics</p> <p>1 - Assey A-V-X</p> <p>2 - Rear Impact Honda Acceleration (Honda and Dodge EDR)</p> <p>3 - 2020 Honda Odyssey and 2018 Dodge Charger Velocities From EDR</p> <p>4 - 2020 Honda Odyssey Rear Impact Nominal Velocity and Acceleration</p> <p>5 - 2020 Honda Odyssey Longitudinal Acceleration from EDR and Models</p> <p>6 - 2020 Honda Odyssey Longitudinal Acceleration from EDR and Models -- $\Delta V \sim 32$ mph</p> <p>7 - 2020 Honda Odyssey Vertical Displacement During Collision Impulse</p> <p>8 - Honda longitudinal acceleration from CDR report</p> <p>9 - Dodge CDR report selected pre-crash data</p> <p>10 - Pre-Crash Data Vehicle Speed-2C3CDXGJ9JH31 3249_ACM</p>	<p>Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial; D194 contains ID only articles and papers and as such are inadmissible. D196 is a deposition transcript and as such is inadmissible</p>		
189.	<p>Crash Reconstruction Diagrams and Photographs</p> <p>1 - Assey Crash reconstruction diagram</p> <p>2 - Impact and Rest Positions on Crash Site Satellite Image</p> <p>3 - 2020 Honda Odyssey Velocity and Travel Distance</p> <p>4 - 2018 Dodge Charger Velocity and Distance Traveled</p> <p>5 - Pre-impact Dodge tire mark showing movement to right (IMG_0289)</p> <p>6 - Pavement markings in the vicinity of the area of impact (IMG_0304)</p> <p>7 - Tire mark evidence showing Honda movement to the left (IMG_031 3)</p>	<p>Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial; D194 contains ID only articles and papers and as such are inadmissible. D196 is a deposition transcript and as such is inadmissible</p>		

EX #		OBJECTIONS	OFFERED	ADMITTED
	8 - Location of first interaction with median barrier (MG_0347)			
190.	Crush Energy 1 - 2020 Honda Odyssey Deformation Diagram 2 - 2018 Dodge Charger Deformation Diagram 3 - 2018 Dodge Charger Residual Deformation 4 - 2020 Honda Odyssey Rear Stiffness and Crush Energy 5 - 2018 Dodge Charger Front Stiffness and Crush Energy 6 - 2018 Dodge Charger Above Bumper Energy Estimate 7 - Honda 301 R Test Dimensions Diagram1 8 - Honda 301 R Test Dimensions Diagram2 9 - Honda 301R Test Dimensions Diagram3	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial; D194 contains ID only articles and papers and as such are inadmissible. D196 is a deposition transcript and as such is inadmissible		
191.	Load Cell Barrier Crash Test Analysis 1 - Load Cell Barrier Full Scale Mockup v09503P001 2 - Load Cell Barrier Detail Diagram v09503R001 3 - Dodge Charger Crash Test 9503 Impulse Analysis 4 - Dodge Charger Crash Test 9503 Accelerometer Analysis 5 - Dodge Charger Crash Test 9503 Velocity and Displacement vs. Time 6 - Dodge Charger Barrier Force vs. Frontal Crush	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial; D194 contains ID only articles and papers and as such are inadmissible. D196 is a deposition transcript and as such is inadmissible		
192.	Impulse Momentum 1 - Assey Crash Alignment and Maximum Engagement 2 - Assey Simulation Alignment 108-55 4550 5000 3 - Assey Simulation Report 108-55 4550 5000 4 - GEMEXCEL Assey 108-55, 4550 5000 5 - GEMEXCEL Assey 108-55, 4595 4949	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial; D194 contains ID only articles and papers and as such are		

EX #		OBJECTIONS	OFFERED	ADMITTED
	6 - GEMEXCEL Assey 109-55, 4595 4949 7 - MOMEX Assey 108-55 4945 4949 8 - MOMEX Assey 109-55 4945 4949 9 - GEMEXCEL Assey (Dodge ΔEnergy) 110.6-55, 4595 4949 10 - GEMEXCEL Assey 111.5-55, 4595 4949 11 - GEMEXCEL Assey 101-55, 4595 4949 12 - Impulse-Momentum Basic Equations	inadmissible. D196 is a deposition transcript and as such is inadmissible		
193.	GE Inspections a. GE AVI Photographs (130) b. GE EXE VI Photographs (28) c. GE SI Photographs (162) d. GE VI Photographs (453) e. Crash Site Scans (12) f. Exemplar Charger Scans (5) g. VIAVI Scans Part 1 (15) h. VIAVI Scans Part 2 (13)	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial; D194 contains ID only articles and papers and as such are inadmissible. D196 is a deposition transcript and as such is inadmissible		
194.	Literature a. SAE 2014-01-0502 re EDR Data b. Recording Automotive Crash Event Data dot_5163_DS1 c. Cumulative distribution of ΔV by general area of damage (from SAE 2010-01-0139, Fig. 4) d. Accident Statistical Distributions from NASS CDS cover page e. 49 CFR Part 563	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial; D194 contains ID only articles and papers and as such are inadmissible. D196 is a deposition transcript and as such is inadmissible		
195.	Report and Report Figures a. Assey v Honda GE Report Final 20240812 - for ID	Objection to the extent any of these exhibits have not been		

EX #		OBJECTIONS	OFFERED	ADMITTED
	<p>Fig. 1. Impact and Rest Positions on Crash Site Satellite Image</p> <p>Fig 2. Overview of Honda damage patterns from GE VI photographs</p> <p>Fig. 3. Overview of Dodge damage patterns from GE VI Assey Dodge Damage Patterns</p> <p>Fig. 4. Dodge CDR report selected pre-crash data</p> <p>Fig. 5. Assey Crash reconstruction diagram</p> <p>Fig. 6. Pre-impact Dodge tire mark showing movement to right (IMG_0289)</p> <p>Fig. 7. Crash alignment and maximum engagement</p> <p>Fig. 8. Pavement markings in the vicinity of the area of impact (IMG_0304)</p> <p>Fig. 9. Tire mark evidence showing Honda movement to the left (IMG_031 3)</p> <p>Fig. 10. Location of first interaction with median barrier (IMG_0347)</p> <p>Fig. 11. Honda velocity and distance vs. time</p> <p>Fig. 12. Dodge velocity and distance vs. time</p> <p>Fig. 13. Pre-crash speed for 2018 Dodge Charger</p> <p>Fig. 14. Honda Odyssey deformation diagram</p> <p>Fig. 15. Dodge Charger deformation diagram</p> <p>Fig. 16. 2020 Honda Odyssey rear stiffness and crush energy</p> <p>Fig 17. 2018 Dodge Charger front stiffness and crush energy</p> <p>Fig. 18. Honda 301R Crash Test dimensions diagram 1</p> <p>Fig. 19. Honda 301R Crash Test dimensions diagram 2</p> <p>Fig. 20. Honda 301R Crash Test dimensions diagram 3</p> <p>Fig. 21. Impulse-momentum computations for subject crash</p> <p>Fig. 22. Impulse-momentum computations and depiction for subject crash</p> <p>Fig. 23. Impulse-momentum computations for 101 mph impact speed</p>	<p>produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial; D194 contains ID only articles and papers and as such are inadmissible. D196 is a deposition transcript and as such is inadmissible</p>		

EX #		OBJECTIONS	OFFERED	ADMITTED
	Fig. 24. Acceleration v time for Honda and Dodge Fig. 25. Honda longitudinal acceleration from CDR report Fig. 26. Velocity-time for Honda and Dodge EDR data Fig. 27. Honda Odyssey 100 Hz longitudinal acceleration and models Fig. 28. Honda Rear Impact Velocity and Acceleration Fig. 29. Cumulative distribution of ΔV by general area of damage (from SAE 2010-01-0139, Fig. 4			
196.	Miscellaneous 1 - GJG Assey v Honda Deposition 2 - GJG Assey Deposition Errata Signed 3 - Overview of Dodge damage patterns from GE VI Assey Dodge Damage Patterns 4 - Overview of Honda damage patterns from GE VI photographs 5 - 2018 Dodge Charger R/T 2C3CDXGJ*JH 6 - GE 2018 Dodge Charger AVI Notes 7 - 2018 Dodge Charger R/T Canadian Vehicle Specifications 8 - Dodge Charger crash test v07606R001 9 - Dodge Charger crash test v09503R001 10 - 2020 Honda Odyssey Dimensioned Line Drawings 11 - 2020 Honda Odyssey Specifications & Features 12 - GE 2020 Honda Odyssey VI Notes 13 - 2020 Honda Odyssey EXL Canadian Vehicle Specifications 14 - 2020 Honda Odyssey 5FNRL6H74LB00381 6 15 - Honda Odyssey Crash Test v11 842R001 16 – Drop Height Exhibit 1 Graphic 17 – Drop Height Exhibit 2 Graphic	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial; D194 contains ID only articles and papers and as such are inadmissible. D196 is a deposition transcript and as such is inadmissible		
197.	William W. Van Arsdell, Ph.D., P.E. CV - for ID			
198.	William W. Van Arsdell Report – for ID			

EX #		OBJECTIONS	OFFERED	ADMITTED
199.	EP Trial PowerPoint: Compilation of other exhibits	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial. D208 contains ID only articles and papers and as such are inadmissible		
200.	EP Principles Photos and Video a. Vehicle Inspection 05Mar24 1-Select photos for trial b. Seat belt removal 27Jun24 2-Select photos for trial c. Pretensioner Testing Photos 29Aug24 3-Select photos for trial d. Retractor Disassembly 4-Select photos for trial	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial. D208 contains ID only articles and papers and as such are inadmissible		
201.	Photos taken by others a. Subj Vehicle (fm Sicher) 1-40 b. WISAT Subj Vehicle (fm Sicher) 1-788 c. WISAT Select (fm Sicher) 1-55 d. Fijalkowski 1-463 e. Andrews Subj Vehicle 1-324 f. Fijalkowski Drone 1-28 g. Markuskewski Vehicle & Belt removal 1-730 h. Markuskewski Lap Belt 1-268 i. Sicher Subj Vehicle & Seat removal 1-64 j. Photo of Mr. Assey k. Allstate records update	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial. D208 contains ID only articles and papers and as such are inadmissible		
202.	Subject driver seat belt and seat removed from subject vehicle	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to		

EX #		OBJECTIONS	OFFERED	ADMITTED
		their use at trial. D208 contains ID only articles and papers and as such are inadmissible		
203.	Exemplar diver seat belts and seat a. Unmarked belt b. Belts marked with locations of load marks, and positions from surrogate study c. Belts marked with inch marks d. Disassembled retractor e. Torsion bar f. Exemplar buckle	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial. D208 contains ID only articles and papers and as such are inadmissible		
204.	NHTSA and IIHS test reports a. FMVSS compliance reports 1. 201 2. 208 3. 209 4. 301R b. NHTSA test reports 1. 10130 2. 10131 3. 10132 4. 11842 c. IIHS test reports 1. Rear Impact Sled 2. Small Overlap Frontal 3. Small Overlap Frontal 4. Small Overlap Frontal	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial. D208 contains ID only articles and papers and as such are inadmissible		
205.	Honda Odyssey Buck	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial. D208 contains ID only articles and papers and as such are inadmissible		

EX #		OBJECTIONS	OFFERED	ADMITTED
206.	Demonstrative of how marks are created	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial. D208 contains ID only articles and papers and as such are inadmissible		
207.	Driver seat belt from PT demo	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial. D208 contains ID only articles and papers and as such are inadmissible		
208.	<p>Literature</p> <p>a. (1966) Public Law 89-563</p> <p>b. (1976) 41 FR 2391</p> <p>c. (1984) Kahane, C. "Final Regulatory Impact Analysis, Amendment to Federal Motor Vehicle Safety Standard 208, Passenger Car Front Seat Occupant Protection." NHTSA DOT HS 806 572</p> <p>d. (1990) Partyka, S. "Comparisons of Belt Effectiveness in Preventing Chest, Head and Face Injury in Front and Rear Impacts - Report." NHTSA Docket NHTSA-1998-4047</p> <p>e. (1992) NHTSA "Evaluation of Effectiveness of Occupant</p>	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial. D208 contains ID only articles and papers and as such are inadmissible		

EX #		OBJECTIONS	OFFERED	ADMITTED
	<p>Protection [[[Final Regulatory Impact Analysis).” NHTSA</p> <p>f. (1993) NHTSA. “First Report to Congress on Effectiveness of Occupant Protection Systems.” NHTSA, DOT HS 808 019</p> <p>g. (1996) NHTSA “NHTSA 2nd Report to Congress on Effectiveness of Occupant Protection Systems.” NHTSA</p> <p>h. (2000) Kahane, C. “Fatality Reduction by Safety Belts for Front-seat Occupants of Cars and Light Trucks.” NHTSA DOT HS 809 199</p> <p>i. (2004) Kahane, C. “Lives Saved by the Federal Motor Vehicle Safety Standards and Other Vehicle Safety Technologies, 1960-2002.” NHTSA, DOT HS 809 833</p> <p>j. (2015) Kahane, C. “Lives Saved by Vehicle Safety Technologies and Associated FMVSSs.” ESV 15-0291-O</p> <p>k. (2015) Kahane, C. “Lives Saved by Vehicle Safety Technologies and Associated Federal Motor Vehicle Safety Standards, 1960 to 2012” NHTSA, DOT HS 812 069</p> <p>l. (1977) Huelke, D. et al. “The Effectiveness of Seat Belt Systems in Frontal and Rollover Crashes.” SAE 770148.</p> <p>m. (2010) Heller, The Effect of Frontal Collision Delta-v and Restraint Status on Injury Outcome. SAE 2010-01-0145</p>			

EX #		OBJECTIONS	OFFERED	ADMITTED
	<p>n. (2010) Imler, The Effect of Side Impact Collision Delta-v, Restraint Status, and Occ... SAE 2010-01-1158</p> <p>o. (1977) Hu, Response of Belted Dummy and Cadaver to Rear Impact. SAE 770929</p> <p>p. (1987) Strother, Evaluation of Seat Back Strength and Seat Belt Effectiveness</p> <p>q. (1991) James, Occupant Protection in Rear-end Collisions I. Safety Priorities and Seat Belt Eff... SAE 912913</p> <p>r. (1992) Viano, D. "Restraint of a Belted or Unbelted Occupant By the Seat in Rear-end Impacts." SAE 922522.</p> <p>s. (2008) Viano, Occupant Responses in High-speed Rear Impacts Analysis of Gov... SAE 2008-01-0188</p> <p>t. (1994) Strother, Response of Out-of-position Dummies in Rear Impact. SAE 941055</p> <p>u. (2012) Petit, Investigation on Occupant Ejection in High Severity Rear Impact Based on Post... SAE 2011-22-0005</p> <p>v. (2010) Viano, Ejection and Severe Injury Risks By Crash Type and Belt Use with ... Traffic Inj Prev 11 79-86, 2010</p> <p>w. (2014) Imler, The Effect of Rear Impact Collision Delta-v and Restraint Status on Injury Outcome. SAE 2014-01-0524</p> <p>x. (2020) Atarod, Occupant Dynamics During Low, Moderate, and High Speed Rear-end Collisions. SAE 2020-01-0516</p>			

EX #		OBJECTIONS	OFFERED	ADMITTED
	<p>y. (2019) White, Seat Performance and Occupant Moving Out of the Shoulder Belt in ABTS... SAE 2019-01-1031</p> <p>z. (2021) Toney-Bolger, The Role of Seat Belt Restraint Sys Components in Rear-End Coll... SAE 2021-01-0912</p> <p>aa. (1984) Moffatt, Diagnosis of Seat Belt Usage in Accidents. SAE 840396</p> <p>bb. (1999) Bready, Seat Belt Survey Identification and Assessment of Noncollision Markings. SAE 1999-01-0441</p> <p>cc. (2006) Tanner, Automotive Restraint Loading Evidence for Moderate Speed Impacts and... SAE 2006-01-0900</p> <p>dd. (2006) Davee, Case Study of Clothing Fabric Transfer to Seat Belt Webbing Under Accident Forces. SAE 2006-01-0904</p> <p>ee. (2006) Raymond, Forensic Determination of Seat Belt Usage in Automotive Coll... SAE 2006-01-1128</p> <p>ff. (2007) Welsh, Restraint System Markings and Occupant Kinematics in Cr... ASME IMECE2007-42042</p> <p>gg. (2008) Heydinger, G. et al. "Comparison of Collision and Noncollision Marks on Vehicle Restraint Systems." SAE 2008-01-0160.</p> <p>hh. (2008) Beaudoin, Restraint Load Marks in Sled Testing Conducted with the Hybrid III 3-y... SAE 2008-01-1239</p> <p>ii. (2009) Brown, Comparison of Restraint System Marks with Proper and Improper Belt</p>			

EX #		OBJECTIONS	OFFERED	ADMITTED
	<p>Usage. SAE 2009-01-1243</p> <p>jj. (2009) Burnett, Frontal Impact Rear Seatbelt Load Marks An In-depth Analysis. SAE 2009-01-1249</p> <p>kk. (2008) Padmanaban, Seat Integrated and Conventional Restraints a Study of Cr... AAAM</p> <p>ll. (2024) FMVSS 207 - ANPRM. 89 FR 57998., p 58023.</p> <p>mm. (1979) 44 FR 77210 - NPRM Comfort and Convenience Seat Belts</p> <p>nn. (2001) Balci, Comfort and Usability of the Seat Belts. SAE 2001-01-0051</p> <p>oo. (2019) Osvalder, Seat Belt Fit and Comfort for Older Adult Front Seat Passengers in Cars. IRCOB IIRC-19-12</p> <p>pp. (1974) Pierce, Sources and Remedies for Restraint System Discomfort and Inconveniences. NHTSA DOT HS 801 277</p> <p>qq. (2013) Reed, Effects of Driver Characteristics on Seat Belt Fit. SAE 2013-22-0002</p> <p>rr. (2009) Padmanaban, Relationship Between Seatback Stiffness and Risk of Serious... SAE 2009-01-1201</p>			
209.	Harry Pearce, P.E. CV- for ID			
210.	Harry Pearce Report – for ID			
211.	Updated Crash Test Slide.pptx			
212.	Steels Comparison.xlsx			
213.	Accident Statistical Distributions from NASS CDS 2020-01-0518 Yaek			
214.	NASS Severity Chart.xlsx			
215.	Rear Collision Load Case Comparison Calcs.xlsx			

EX #		OBJECTIONS	OFFERED	ADMITTED
216.	Figure 1. Vehicles, occupants, and ages			
217.	Figure 2. Subject collision was a rear impact offset to the driver side			
218.	Figure 3. 3 rows of seating in Odyssey			
219.	Figure 4. Occupant space well preserved on driver side			
220.	Figure 5. Occupant space well preserved on passenger side			
221.	Figure 6. 3 rd row occupant space well preserved – exterior photo			
222.	Figure 7. 3 rd row occupant space well preserved – interior photo			
223.	Figure 8. B-pillar reinserted in vehicle			
224.	Figure 9. Minimal wheelbase reduction in Odyssey			
225.	Figure 10. Underbody view showing crush to bumper beam and frame rails			
226.	Figure 11. Subject Odyssey frame rail crush (right) compared to exemplar (left)			
227.	Figure 12. Odyssey structure provided good protection of fuel tank			
228.	Figure 13. Police scene photo			
229.	Figure 14. Driver seat position from Plaintiff produced photo MR Assey000119			
230.	Figure 15. Adverse 2018 Dodge Charger at scene			
231.	Figure 16. Charger inspection photo showing engagement, crush, and energy absorption of bumper beam and frame rails			
232.	Figure 17. 97.7 percentile severity			
233.	Figure 18. Impact energy of FMVSS 301R & subject collision			
234.	Figure 19. Crash tests to which Honda designed the 2018-2024 Odyssey			
235.	Figure 20. Crashworthiness ratings of Odyssey			
236.	Figure 21. FMVSS 301 rollover test orientations			
237.	Figure 22. Honda driver side test 170213 post-test photo			
238.	Figure 23. Honda driver side test 170213 maximum engagement from test video			
239.	Figure 24. Honda driver side test 170213 frame rail crush			
240.	Figure 25. Honda driver side test 170213 post-test underbody photo showing good protection of fuel system			

EX #		OBJECTIONS	OFFERED	ADMITTED
241.	Figure 26. Honda passenger side test 161031 post-test photo			
242.	Figure 27. Honda passenger side test 161031 maximum engagement from test video			
243.	Figure 28. Honda driver side test 161031 frame rail crush			
244.	Figure 29. Honda passenger side test 161031 post-test underbody photo showing good protection of fuel system			
245.	Figure 30. NHTSA C20185303 driver side post-test photo			
246.	Figure 31. NHTSA C20185303 maximum engagement from test video			
247.	Figure 32. NHTSA C20185303 frame rail crush			
248.	Figure 33. NHTSA C20185303 post-test underbody photo showing good protection of fuel system			
249.	Figure 34. 2020 Odyssey and peer vehicles			
250.	Figure 35. Odyssey structure with ultimate tensile strengths			
251.	Figure 36. Odyssey and peer structures with ultimate tensile strengths			
252.	Figure 37. Odyssey underbody structure with ultimate tensile strengths			
253.	Figure 38. Odyssey and peer underbody structures with ultimate tensile strengths			
254.	Figure 39. FMVSS 301R maximum engagement of Odyssey, Pacifica, and Sienna			
255.	Table 1. No fuel leakage in Honda driver side test 170213			
256.	Table 2. Fuel system inspection for Honda driver side test 170213			
257.	Table 3. No fuel leakage in Honda Passenger side test 161031			
258.	Table 4. Fuel system inspection for Honda passenger side test 161031			
259.	Table 5. No fuel leakage in NHTSA test C20185303			
260.	Table 6. 2020 Odyssey and peer vehicles			
261.	Table 7. NCAP rating of Odyssey and peers			
262.	Table 8. IIHS rating for Odyssey and peers			
263.	Pearce Honda Odyssey 2020 – Subject Photos	Objection to the extent any of these exhibits		

EX #		OBJECTIONS	OFFERED	ADMITTED
		have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		
264.	Pearce Dodge Charger 2018-Adverse Photos	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		
265.	NHTSA crash test ratings of Honda Odyssey and peer minivans	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		
266.	NHTSA crash test C20185303 report, photographs, videos, and data of Honda Odyssey			
267.	NHTSA crash test C20170302 report, photographs, videos, and data of Chrysler Pacifica			
268.	NHTSA crash test CB5104 report, photographs, videos, and data of Toyota Sienna			
269.	IIHS crash test ratings of Honda Odyssey and peer minivans	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		
270.	IIHS crash test reports, photographs, videos, and data of Honda Odyssey	Objection to the extent any of these exhibits have not been produced to Plaintiffs.		

EX #		OBJECTIONS	OFFERED	ADMITTED
		Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		
271.	Repair literature from Honda and other OEMS			
272.	Gregory D. Stephens CV – for ID			
273.	Gregory D. Stephens Report – for ID			
274.	GDS - Trial PowerPoint: Compilation of other exhibits			
275.	“General Accident Information” – Map, at-scene, and/or vehicle photograph(s), with general accident details			
276.	“Occupant Information – 2020 Honda Odyssey” – Diagram of vehicle with occupant data and position in vehicle			
277.	“Police Diagram” – Excerpt from police documents			
278.	“At-Scene Photographs” – At-Scene photograph(s) of vehicles			
279.	“Early Photographs – Accident 2020 Honda Odyssey” – Early photographs of vehicle			
280.	“Accident 2020 Honda Odyssey – CRA Inspection Photograph(s) – 8/31/2023” – Vehicle inspection photograph(s)			
281.	“Accident 2020 Honda Odyssey – CRA Scan Data” – Vehicle inspection scan data of vehicle and interior (video)			
282.	“Accident 2020 Honda Odyssey Driver’s Seat – Head Restraint” – Seat inspection photograph(s)			
283.	“Accident 2020 Honda Odyssey Driver’s Seat – CRA Inspection Photograph(s) – 8/31/2023” – Seat inspection photograph(s)			
284.	“Accident 2020 Honda Odyssey Driver’s Seat – CRA Scan Data” – Seat inspection scan data			
285.	“Exemplar 2018 Honda Odyssey Driver’s Seat – CRA Inspection Photographs” – Exemplar seat inspection photograph(s)			
286.	“Exemplar 2018 Honda Odyssey Driver’s Seat – CRA Scan Data” – Exemplar seat inspection scan data			

EX #		OBJECTIONS	OFFERED	ADMITTED
287.	<i>“Driver’s Seat Damage Analysis – Position Matching”</i> – Inspection and exemplar seat photographs			
288.	<i>“Driver’s Seat Damage Analysis”</i> – Inspection and exemplar seat photographs			
289.	<i>“Driver’s Seat – Summary Position Settings”</i> – Inspection and exemplar seat photographs and seat position summary			
290.	<i>“Driver’s Seat Damage Comparison”</i> – Inspection and exemplar seat photographs, accident and exemplar seat scans			
291.	<i>“Accident 2020 Honda Odyssey Detrim Driver’s Seat – CRA Inspection Photograph(s) – 8/31/2023”</i> – Seat inspection photograph(s)			
292.	<i>“Accident 2020 Honda Odyssey Detrim Driver’s Seat – CRA Scan Data”</i> – Seat inspection scan data			
293.	<i>“Exemplar 2018 Honda Odyssey Detrim Driver’s Seat – CRA Inspection Photographs”</i> – Exemplar seat inspection photograph(s)			
294.	<i>“Exemplar 2018 Honda Odyssey Detrim Driver’s Seat – CRA Scan Data”</i> – Exemplar seat inspection scan data			
295.	<i>“Detrim Driver’s Seat Damage Analysis”</i> – Inspection and exemplar seat photographs			
296.	<i>“Detrim Driver’s Seat Damage Comparison”</i> – Inspection and exemplar seat photographs and scan data			
297.	<i>“Honda Odyssey EDR Data”</i> – EDR data from Honda Odyssey			
298.	<i>“Dodge Charger EDR Data”</i> – EDR data from Dodge Charger			
299.	<i>“Accident Statistical Distribution from NASS CDS”</i> – Abstract and introduction from technical paper and chart showing cumulative distribution of Delta-Vs – SAE 2020-01-0518			
300.	<i>“Injury-vs-Severity Distribution”</i> – Chart illustrating statistical data			
301.	<i>“Equivalent Fall Height”</i> – Diagram of exemplar vehicle at equivalent fall height for impact severity			
302.	<i>“Vehicle Interchange – Honda Odyssey 2018-2023”</i> – Excerpt Scalia database showing vehicle interchange 2018-2023			

EX #		OBJECTIONS	OFFERED	ADMITTED
303.	<i>“Driver’s Seat Interchange – Honda Odyssey 2018-2023”</i> – Excerpt Mitchell Repair Center showing driver’s seat component interchange 2018-2023			
304.	<i>“Seat Type List – Honda Odyssey 2018-2023”</i> – Excerpt Honda production document showing seat types and their equipment available in the 2018-2023 Honda Odyssey			
305.	<i>“CRA Modified FMVSS 207 - Seat Pull Test – 2018 Honda Odyssey Driver’s Seat (Dual-Recliner)”</i> – Accident vehicle inspection and tested seat photographs, video, and data plots of seat pull test (video)			
306.	<i>“CRA Modified FMVSS 207 Seat Pull Tests 1978 to 2020 (No ABTS) – Seat Strength Comparison”</i> – Chart of CRA tested seats			
307.	<i>“ARCCA – FMVSS 207 Seat Pull Test – 2023 Honda Odyssey Electric Driver’s Seat – 23,400 in-lb”</i> – Photographs, video, data plots, and report excerpts from ARCCA pull testing (video)			
308.	<i>“ARCCA – FMVSS 207 Seat Pull Test – Chrysler Swivel ‘n Go ABTS Seat – 70,158 in-lb”</i> – Photographs and data plots from ARCCA pull testing			
309.	<i>“ARCCA – FMVSS 207 Seat Pull Test – 1999 Chrysler Sebring ABTS Seat – 36,322 in-lb”</i> – Data plot from ARCCA pull testing			
310.	<i>“WSU Testing – Test No. TH21A-01”</i> – Photographs, videos, data plots, and report excerpts from WSU sled testing (video)			
311.	<i>“WSU Testing – Test No. TH21A-02”</i> – Photographs, videos, data plots, and report excerpts from WSU sled testing (video)			
312.	<i>“WSU Testing – Test No. TH21A-03”</i> – Photographs, videos, data plots, and report excerpts from WSU sled testing (video)			
313.	<i>“Biomechanical Responses – WSU Testing”</i> – Table summarizing biomechanical responses from WSU sled testing			

EX #		OBJECTIONS	OFFERED	ADMITTED
314.	<i>“Front Seat (Safety) Specification – TK8 – Head Restraint Impact from Forward”</i> – Excerpts from Honda production materials			
315.	<i>“Head Restraint Impact Forward – TK8A (2011-2017) – Impact ~23 G Peak”</i> – Report excerpts from Honda head restraint testing			
316.	<i>“A Requirement – Seat Moment Strength – Moment Strength 447 Nm (3,956 in-lb)”</i> – Excerpt from Honda production materials			
317.	<i>“Pull Testing – FMVSS 207”</i> – Video(s) and report excerpts from Honda pull testing (video)			
318.	<i>“A Requirement – FMVSS 202a Dynamic Test – Sled Delta-V 17.3 kph (~11 mph)”</i> – Excerpt from Honda production materials			
319.	<i>“Sled Testing – Spec: 202a Dynamic Test”</i> – Video and report excerpts from Honda sled testing (video)			
320.	<i>“Sled Testing – IIHS - Results”</i> – Report excerpts from Honda production materials			
321.	<i>“A Requirement – NIR Head Restraint Performance & IIHS – Sled Delta-V 11 kph (~6.8 mph) : ~6.4 Peak Gs”</i> – Excerpts from Honda production materials			
322.	<i>“Sled Testing – Spec: NIR Head Restraint Performance & IIHS”</i> – Video and report excerpts from Honda sled testing (video)			
323.	<i>“Sled Testing – Spec: IIWPG Whiplash Evaluation (IIHS)”</i> – Excerpts from Honda production materials, video and report excerpts from Honda sled testing (video)			
324.	<i>“Sled Testing – Spec: “Seat Light Collision Dynamic Strength””</i> – Excerpts from Honda production materials, video and report excerpts from Honda sled testing (video)			
325.	<i>“A Requirement – Seat Strength in Rear-End Collision – Sled Delta-V 25 kph (~15.5 mph)”</i> – Excerpt from Honda production materials			

EX #		OBJECTIONS	OFFERED	ADMITTED
326.	<i>“Sled Testing – Spec: Seat Strength in Rear-End Collision - Sled Delta-V ~16.3 mph, ~6.2 Peak Gs”</i> – Videos, video stills, and report excerpts from Honda sled testing (video)			
327.	<i>“Sled Test Spec: Limit rear End Collision Strength– Sled Delta-V 42 kph (~26 mph)”</i> – Excerpts from Honda production materials			
328.	<i>“Sled Testing – Spec: Limit rear End Collision Strength (42 kph)”</i> – Videos, video stills, and report excerpts from Honda sled testing (video)			
329.	<i>“A Requirement – FMVSS 301R – Offset Rear Moving Deformable Barrier – Impact Speed 80 kph (~50 mph)”</i> – Excerpts from Honda production materials			
330.	<i>“Crash Test - FMVSS 301R - 70% Left Offset MDB Test – Test # 170213 – Impact Seed ~50 mph : Delta-V ~21 mph”</i> – Video, data plot, and report excerpts from Honda barrier impact testing (video)			
331.	<i>“Crash Test - FMVSS 301R - 70% Right Offset MDB Test – Test # 161031 – Impact Seed ~50 mph : Delta-V ~21 mph”</i> – Video, data plot, and report excerpts from Honda barrier impact testing (video)			
332.	<i>“Seat Energy Comparison”</i> – Chart comparing seat energies of various tests with subject accident			
333.	<i>“Energy Analysis of Automotive Seat Systems – SAE: 2000-01-1380 - Gregory Stephens et al.”</i> – Excerpts from SAE research paper 2000-01-1380, diagrams, data plots, and video still images of associated rear impact tests			
334.	<i>“H43952 -Ford Explorer Driver’s Seat Sled Test – Delta-V ~23 mph, ~15 Peak Gs”</i> – Photographs, plots, videos, and video stills from Ford seat sled test (video)			
335.	<i>“Exemplar 2018 Honda Odyssey Driver’s Seat”</i> – Physical exemplar Honda Odyssey driver’s seat (detrimmed)			

EX #		OBJECTIONS	OFFERED	ADMITTED
336.	<i>“Exemplar Honda Element Driver’s Seat”</i> – Physical exemplar Honda Element driver’s seat			
337.	<i>“Exemplar Dodge Caravan Swivel ‘n Go 2nd Row Seat”</i> – Physical exemplar Swivel ‘N Go seat			
338.	<i>“Automotive Seat Testing Mid-Fifties”</i> – Text description of seat testing in mid-fifties with video (Poster board(s)/electronic slide(s) and video)			
339.	<i>“Seat Research – 1960’s - Safety Seat Concepts”</i> – Illustrations and photographs of various safety seat designs and concepts			
340.	<i>“Seat Research – 1960’s - Liberty Mutual Safety Car II”</i> – Photograph of safety vehicle and seat design concept			
341.	<i>“Seat Research – 1960’s - UCLA Experiment X-88 – Delta-V: ~16 mph”</i> – Video still images and video of safety seat testing (video)			
342.	<i>“UCLA Rigid Seat Development – Experiment 104 – Delta-V: ~30 mph”</i> – Video still images and video of testing from Experiments 104 (video)			
343.	<i>“UCLA Rigid Seat Development – 1968 X 106 – Delta-V ~30 mph”</i> – Photographs of testing from Experiments 106			
344.	<i>“Seat Research – 1970’s – Roof Mounted Seat Concept – Severy Inc.”</i> - Illustration and photographs of seat			
345.	<i>“Effect of Increased Rigidity on Elastic Rebound”</i> - Video still images and video depicting dynamic test results of a conventional yielding seat and rigidified seat (video)			
346.	<i>“Drop Test - 20 mph Impact Velocity”</i> – Video still images depicting dynamic test results of a conventional yielding seat and rigidified seat			
347.	<i>“Rigid Seat Test – 1990 Porsche 911”</i> – Photographs and video of rigid seat design (video)			
348.	<i>“Occupant Kinematics Comparison”</i> - Illustration(s) depicting head and torso position with rigid seat back and yielding seat back			
349.	<i>“Ramping as A Result of Seatback Geometry”</i> - Illustration(s) depicting			

EX #		OBJECTIONS	OFFERED	ADMITTED
	head and torso position as seat back rotates rearward and downward			
350.	<i>“Rigidified Seat Rebound Effects”</i> Illustration(s) depicting head and torso position as moves rearward and rebounds forward			
351.	<i>“Quasi-Static Seat Pull Test Protocol – Collision Research”</i> – Diagram of seat pull test setup with test protocol			
352.	<i>“1999 Volvo S80 Seat Pull Test”</i> – Photographs and data plot of seat pull test			
353.	<i>“WHIPS Seat – Volvo S80”</i> – Still images and video of 3D model of components and seat motion (video)			
354.	<i>“1998 Chrysler Sebring Seat Pull Test”</i> – Photographs of seat pull test			
355.	<i>“1999 Pontiac Grand Am Seat Pull Test”</i> – Photographs of seat pull test			
356.	<i>“2003 Chevrolet TrailBlazer Seat Pull Test”</i> – Photographs of seat pull test			
357.	<i>“2001 Buick LeSabre Seat Pull Test”</i> – Photographs of seat pull test			
358.	<i>“2002 Buick Park Avenue Seat Pull Test”</i> – Photographs of seat pull test			
359.	<i>“1996 Mercedes-Benz SL Seat Pull Test”</i> – Photographs, video, and data plot of seat pull test (video)			
360.	<i>“1996 Audi Cabriolet Right Front Passenger Seat Pull Test”</i> – Photographs, video, video still images, and data plot of seat pull test (video)			
361.	<i>“2008 Honda Element Left Front Driver’s Seat Pull Test”</i> – Photographs and video of seat pull test (video)			
362.	<i>“SAFE – Rear Impact Sled Testing – 2006 Audi A4 and 2001 Chrysler Sebring”</i> – Report excerpts, data, photograph(s), video, and video still images of SAFE sled test (video)			
363.	<i>“SAFE – Rear Impact Sled Testing – 1996 Audi Cabriolet ABTS Seat”</i> – Report excerpts, data, photograph(s), video, and video still images of SAFE sled test (video)			
364.	<i>“SAFE Sled Test – 2001 Toyota Corolla Rear Impact Sled Test with Corolla and Celica Front Seats”</i> – Report excerpts, data, photograph(s), video, and video still images of SAFE sled test (video)			

EX #		OBJECTIONS	OFFERED	ADMITTED
365.	<i>“SAFE Sled Test – Reinforced Sebring (Dual Recliner) ABTS Seat – 24.8 mph Delta-V, 14.3 Peak Gs”</i> – Report excerpts, data, photograph(s), video, and video still images of SAFE sled test (video)			
366.	<i>“ARCCA – Hyundai Sonata Sled Test - 20 mph, 50th Male Dummy”</i> – Photograph(s), video, and video still images of ARCCA sled test (video)			
367.	<i>“ARCCA Rigid Seat”</i> – Photograph of ARCCA rigid seat design			
368.	<i>“ARCCA-NAWC Rear Impact Kinematics Study - 1996”</i> – Sequences of video still images from sled tests of production and reinforced seats showing seat and dummy response to collision forces, with sled test data (report)			
369.	<i>“ARCCA - Jan 1996 Sled Tests – Rigid Seats Exceed Mertz Values”</i> – Chart of ARCCA rigid seat test data			
370.	<i>“Rigidified Seat Sled Test – Delta-V: 20 mph”</i> – Photograph(s), video, and video still images of sled test (video)			
371.	<i>“Volvo 850 Manual Seat Sled Test – Delta-V: 29 mph”</i> – Video, and video still images from Volvo seat sled test (video)			
372.	<i>“Volvo 850 Electric Seat Sled Test – Delta-V: 29 mph”</i> – Video, and video still images from Volvo seat sled test (video)			
373.	<i>“BMW 850 Seat Sled Test – Delta-V: 25 mph”</i> – Video, and video still images from BMW seat sled test (video)			
374.	<i>“1991 BMW 850 into 1991 BMW 850”</i> – Video, and video still images from BMW two vehicle crash test (video)			
375.	<i>“Out-Of-Position Occupant”</i> – Video, and video still images depicting sled tests of various rigidified seats with out-of-position dummies (video)			
376.	<i>“Automotive Sled Test – 2002 Toyota Corolla with a 2002 Chrysler Sebring Seat”</i> – Photographs, video, and video still images from Sebring seat sled test (video)			
377.	<i>“H-III 5th Female Grand Voyager Buck – 25-mph Rear Delta-V”</i> – Video, video still images and data plots from sled tests			

EX #		OBJECTIONS	OFFERED	ADMITTED
	of Voyager seat and LeSabre ABTS seat (video)			
378.	<i>“H-III 5th Female Explorer Buck – 26-mph Rear Delta-V”</i> – Video, video still images and data plots from sled tests of Explorer seat and Sebring ABTS seat (video)			
379.	<i>“2002 Chevrolet TrailBlazer Sled Test”</i> – Video, and video still images of sled test of Chevrolet TrailBlazer seat (video)			
380.	<i>“2000 Buick LeSabre Sled Test”</i> – Video, and video still images of sled test of Buick LeSabre seat (video)			
381.	<i>“HYGE Sled Test (31446) – Ford Explorer Seat”</i> – Photographs, charts, video, and video still images of sled test of Ford Explorer seat (video)			
382.	<i>“HYGE Sled Test (31447) – Chevrolet TrailBlazer Seat”</i> – Photographs, charts, video, and video still images of sled test of Chevrolet TrailBlazer seat (video)			
383.	<i>“HYGE Sled Test (31448) - Buick LeSabre Seat”</i> – Photographs, charts, video, and video still images of sled test of Buick LeSabre seat (video)			
384.	<i>“Mercedes-Benz SL Seat Sled Test – Delta-V: 25.5 mph”</i> – Video, video still images and data plots from sled test of Mercedes-Benz SL seat (video)			
385.	<i>“Mercedes-Benz SL500 (ABTS) Sled Test – H-III 95th Male ATD - Out of Position (OOP), Delta-V ~38 mph, ~30 Peak Gs”</i> – Video, photograph(s), and MGA test report excerpts and data plots (video)			
386.	<i>“Mercedes-Benz SL500 (ABTS) Sled Test – H-III 50th Male ATD - Out of Position (OOP), Delta-V ~38 mph, ~30 Peak Gs”</i> – Video, photograph(s), and MGA test report excerpts and data plots (video)			
387.	<i>“Ford Angled Sled Tests - ~30 mph, H-III 50th ATD, Out of Position (OOP)”</i> – Photographs, video, video still images, and data plots from sled tests H42184-H42189 (video)			
388.	<i>“H40257 Reinforced Sebring Seat (Dual Recliner) Sled Test – ~35 mph, 5th Female ATD”</i> – Photographs, video,			

EX #		OBJECTIONS	OFFERED	ADMITTED
	video still images, and data plots from Sebring seat sled tests (video)			
389.	<i>“H40258 Ford F-150 Seat Sled Test – ~35 mph, 5th Female ATD”</i> – Photographs, video, video still images, and data plots from F-150 seat sled test (video)			
390.	<i>“H40257 Reinforced Sebring Compared to H40258 Ford F-150 - ~35 mph, 5th Female ATD”</i> – Photographs, video still images, and data plots from Sebring seat and F-150 seat sled tests			
391.	<i>“CAPE Reinforced Dodge Ram Seat (Dual Recliner) Sled Test - ~29 mph, 95th Male ATD”</i> – Photographs, video, video still images, and data plots from Dodge Ram seat sled test (video)			
392.	<i>“H40483 Ford Escape – ST-0801 Pulse, H-III 50th Male ATD, ~25 mph Delta-V”</i> – Photographs, video, video still images, and data plots from Ford Escape seat sled test (video)			
393.	<i>“H40485 Double Sebring – ST-0801 Pulse, H-III 50th Male ATD, ~25 mph Delta-V”</i> – Photographs, video, video still images, and data plots from Sebring seat sled test (video)			
394.	<i>“H40483 Ford Escape Compared to H40485 Double Sebring – ST-0801 Pulse, H-III 50th Male ATD, ~25 mph Delta-V”</i> – Data plots from Ford Escape and Double Sebring seat sled tests			
395.	<i>“H40484 Ford Escape OOP – ST-0801 Pulse, H-III 50th Male ATD, ~25 mph Delta-V”</i> – Photographs, video, video still images, and data plots from Ford Escape seat sled test (video)			
396.	<i>“H40486 Double Sebring OOP – ST-0801 Pulse, H-III 50th Male ATD, ~25 mph Delta-V”</i> – Photographs, video, video still images, and data plots from Sebring seat sled test (video)			
397.	<i>“H40484 Ford Escape OOP Compared to H40486 Double Sebring OOP – ST-0801 Pulse, H-III 50th Male ATD, ~25 mph Delta-V”</i> – Data plots from Ford Escape and Double Sebring OOP seat sled tests			

EX #		OBJECTIONS	OFFERED	ADMITTED
398.	<i>“MGA W19245 Sebring Seat – H-III 50th Male ATD, ~35 mph Delta-V”</i> – Photographs, video, video still images, and data plots from Sebring seat sled test (video)			
399.	<i>“Chrysler Reinforced Sebring (Dual Recliner) Sled Test – H-III 50th Male ATD - Out of Position (OOP), Delta-V ~38 mph, ~30 Peak Gs”</i> – Video, photograph(s), and MGA test report excerpts and data plots (video)			
400.	<i>“Honda Element ABTS (Dual-Recliner) Sled Testing – H-III 95th Male ATD In-Position, ~34 mph Delta-V & ~28 Peak Gs”</i> – Photographs, video, video still images, and data plots from Honda Element seat sled test (video)			
401.	<i>“Honda Element ABTS (Dual-Recliner) Sled Testing – H-III 5th Female ATD, ~34 mph Delta-V & ~28 Peak Gs”</i> – Photographs, video, video still images, and data plots from Honda Element seat sled test (video)			
402.	<i>“Honda Element ABTS (Dual-Recliner) Sled Testing – H-III 5th Female ATD Out-of-Position (OOP), ~34 mph Delta-V & ~28 Peak Gs”</i> – Photographs, video, video still images, and data plots from Honda Element seat sled test (video)			
403.	<i>“Honda Element ABTS (Dual-Recliner) Sled Testing – H-III 5th Female ATD In & Out-of-Position (OOP), ~34 mph Delta- V & ~28 Peak Gs”</i> – Photographs, video still images, and data plots from Honda Element seat sled tests			
404.	<i>“Honda Element ABTS (Dual-Recliner) Sled Testing – Modified H-III 95th ATD (273 lb) Out-of-Position (OOP), ~35 mph Delta- V & ~27 Peak Gs”</i> – Photographs, video, video still images, and data from Honda Element seat sled test (video)			
405.	<i>“Honda Element ABTS (Dual-Recliner) Sled Testing – Modified H-III 95th ATD (310 lb), ~28 mph Delta- V & ~19 Peak Gs”</i> – Photographs, video, video still images, and data from Honda Element seat sled test (video)			

EX #		OBJECTIONS	OFFERED	ADMITTED
406.	<i>“Honda Element ABTS (Dual-Recliner) Sled Test –H-III 95th Male ATD, Delta-V ~34 mph, ~28 Peak Gs”</i> – Photographs, video, video still images, and data from Honda Element seat sled test (video)			
407.	<i>“Honda Element ABTS (Dual-Recliner) Sled Test –H-III 5th Female ATD, Delta-V ~34 mph, ~28 Peak Gs”</i> – Photographs, video, video still images, and data from Honda Element seat sled test (video)			
408.	<i>“Dodge Grand Caravan 2nd Row Swivel ’n Go Seat (ABTS) – Modified H-III 5th Female ATD, ~34 mph Delta-V, ~15^o”</i> – Photographs, video, video still images, and data plots from Swivel ’n Go seat sled test (video)			
409.	<i>“Chrysler 2nd Row Swivel ’n Go Seat (ABTS) Sled Test – H-III 95th Male ATD, ~35 mph Delta-V & ~29 Peak Gs”</i> – Photographs, video, video still images, and data plots from Chrysler Swivel n’ Go seat sled test (video)			
410.	<i>“Chrysler 2nd Row Swivel ’n Go Seat (ABTS) Sled Test – H-III 5th Female ATD, ~35 mph Delta-V& ~29 Peak Gs”</i> - Photographs, video, video still images, and data plots from Crysler Swivel n’ Go seat sled test (video)			
411.	<i>“Dodge 2nd Row Swivel ’n Go Seat (ABTS) Sled Test – H-III 95th Male ATD, Delta-V ~36 mph, ~24 Peak Gs”</i> – Photographs, video, video still images, and data plots from Swivel ’n Go seat sled test (video)			
412.	<i>“Dodge 2nd Row Swivel ’n Go Seat (ABTS) Sled Test – H-III 5th Female ATD, Delta-V ~36 mph, ~24 Peak Gs”</i> – Photographs, video, video still images, and data plots from Swivel ’n Go seat sled test (video)			
413.	<i>“Dodge 2nd Row Swivel ’n Go Seat (ABTS) Sled Test – H-III 95th Male ATD, Delta-V ~34 mph, ~27 Peak Gs”</i> – Photographs, video, video still images, and data plots from Swivel ’n Go seat sled test (video)			
414.	<i>“Dodge 2nd Row Swivel ’n Go Seat (ABTS) Sled Test – H-III 5th Female ATD, Delta-V ~34 mph, ~27 Peak Gs”</i> –			

EX #		OBJECTIONS	OFFERED	ADMITTED
	Photographs, video, video still images, and data plots from Swivel 'n Go seat sled test (video)			
415.	<i>“Dodge 2nd Row Swivel 'n Go Seat (ABTS) Sled Test – H-III 50th Male ATD – Out of Position (OOP), Delta-V ~38 mph, ~30 Peak Gs”</i> – Photographs, video, video still images, and data plots from Swivel 'n Go seat sled test (video)			
416.	<i>“Dodge 2nd Row Swivel 'n Go Seat (ABTS) Sled Test – H-III 5th Female ATD – Out of Position (OOP), Delta-V ~38 mph, ~30 Peak Gs”</i> – Photographs, video, video still images, and data plots from Swivel 'n Go seat sled test (video)			
417.	<i>“Dodge 2nd Row Swivel 'n Go Seat (ABTS) Sled Test – H-III 95th Male ATD – Out of Position (OOP), Delta-V ~38 mph, ~30 Peak Gs”</i> – Photographs, video, video still images, and data plots from Swivel 'n Go seat sled test (video)			
418.	<i>“Mercedes-Benz Integrated Seat Design”</i> – Photographs of vehicle and seat			
419.	<i>“Mercedes-Benz Seat Design”</i> – Photographs of vehicle and seat			
420.	<i>“BMW 850”</i> – Photographs of vehicle and seat			
421.	<i>“Chrysler Sebring”</i> – Photographs of vehicle and seat			
422.	<i>“Dodge Ram”</i> – Photographs of vehicle and seat			
423.	<i>“Buick Park Avenue”</i> – Photographs of vehicle and seat			
424.	<i>“Buick LeSabre”</i> – Photographs of vehicle and seat			
425.	<i>“Chevrolet Suburban”</i> – Photographs of vehicle and seat			
426.	<i>“2003 Ford Expedition”</i> – Photographs of vehicle and seat			
427.	<i>“2003 Ford F-150 Truck”</i> – Photographs of vehicle and seat			
428.	<i>“2004 Ford F-150 Truck”</i> – Photographs of vehicle and seat			
429.	<i>“2007 Saab 9-7x”</i> – Photographs of vehicle and seat			
430.	<i>“2011 Saab 9-4x”</i> – Photographs of vehicle and seat			

EX #		OBJECTIONS	OFFERED	ADMITTED
431.	<i>“2006 Honda Element”</i> – Photographs of vehicle and seat			
432.	<i>“2009 Toyota Sienna”</i> – Photographs of vehicle and seat			
433.	<i>“1999 Passenger Cars Sold in the United States”</i> - Chart of vehicles			
434.	<i>“1999 Passenger Cars Sold in the United States – Vehicles without Integrated Seat Belts”</i> – List of vehicles			
435.	<i>“1999 Passenger Cars Sold in the United States – Vehicles with Integrated Seat Belts”</i> - List of vehicles			
436.	<i>“ABTS by Sales Volume”</i> - Chart(s) of vehicle sales			
437.	<i>“Design Change Away from All Belts to Seat (ABTS)”</i> – List & Photographs from Brochures			
438.	<i>“FMVSS 301 Rear Moving Barrier Testing – 1993 Honda Civic Del Sol”</i> – Video and video still images from barrier impact test (video)			
439.	<i>“FMVSS 301 Rear Moving Barrier Testing – 1995 Honda Passport”</i> – Video and video still images from barrier impact test (video)			
440.	<i>“FMVSS 301 Rear Moving Barrier Testing – 2000 BMW 328”</i> – Video and video still images from barrier impact test (video)			
441.	<i>“FMVSS 301 Rear Moving Barrier Testing – 2000 Subaru Legacy”</i> – Video and video still images from barrier impact test (video)			
442.	<i>“FMVSS 301 Rear Moving Barrier Testing – 2002 Toyota Camry”</i> – Video and video still images from barrier impact test (video)			
443.	<i>“FMVSS 301 Rear Moving Barrier Testing – 2003 Chrysler PT Cruiser”</i> – Video and video still images from barrier impact test (video)			
444.	<i>“FMVSS 301 Rear Moving Barrier Testing – 2003 Jeep Liberty”</i> – Video and video still images from barrier impact test (video)			
445.	<i>“FMVSS 301 Rear Moving Barrier Testing – 2003 Volvo S40”</i> – Video and video still images from barrier impact test (video)			

EX #		OBJECTIONS	OFFERED	ADMITTED
446.	<i>“FMVSS 301 Rear Moving Barrier Testing – 2003 Volvo V70”</i> – Video and video still images from barrier impact test (video)			
447.	<i>“FMVSS 301 Rear Moving Barrier Testing – 2005 Suzuki Reno”</i> – Video and video still images from barrier impact test (video)			
448.	<i>“FMVSS 301 Rear Moving Barrier Testing – 2005 VW Golf”</i> – Video and video still images from barrier impact test (video)			
449.	<i>“1970 – Yielding Seats - 2005”</i> – Excerpts from Volvo and Lexus brochures			
450.	<i>“Excerpt from Federal Motor Vehicle Safety Standard 207”</i> - Illustrations and excerpts from Federal Motor Vehicle Safety Standards			
451.	<i>“K. Saczalski Petition to Open Docket 89-20”</i> – Letter from K. Saczalski to NHTSA regarding Docket 89-20			
452.	<i>“Mercedes-Benz Comments to Docket 89-20”</i> – Letter from Mercedes-Benz to NHTSA regarding Docket 89-20			
453.	<i>“Toyota Comments to Docket 89-20”</i> – Letter from Toyota to NHTSA regarding Docket 89-20			
454.	<i>“NHTSA Termination of Rulemaking – November 16, 2004”</i> – Excerpts from DOT NHTSA 49 CFR Part 571, FMVSS 207 Seating Systems – Action: Termination of rulemaking			
455.	<i>“Current Seat Related Publications”</i> – Cover images of 2 seat reference books by Viano			
456.	<i>“Excerpt from ‘Role of the Seat in Rear Crash Safety’ by David Viano”</i> – ExcerptS from seat reference book by Viano			
457.	<i>“Quasistatic Seat Test (QST) Setup”</i> – Photographs and diagrams of seat pull test setup			
458.	<i>“Excerpt from A. Levitt Publication - 2009”</i> – Excerpts from SAE research paper 2009-01-1201			
459.	<i>“Excerpt from A. Levitt Publication - 2016”</i> – Excerpts from SAE research paper 2016-01-1512			

EX #		OBJECTIONS	OFFERED	ADMITTED
460.	<i>“Severe Injury in Multiple Impacts”</i> – Abstract, introduction, and excerpt from technical paper			
461.	<i>“NASS Crash Severity Distributions – Rear Damage Only”</i> – Chart illustrating statistical data			
462.	<i>“Multi-Vehicle Crashes by Manner of Collision”</i> – Chart illustrating statistical data			
463.	<i>“Injury Severity Distribution in Rear End Collisions”</i> – Plotted data of rear end collision injuries - NHTSA 1989 and 2014			
464.	<i>“Percent of Occupants with MAIS 4+ by Area of Vehicle Damage”</i> – Chart illustrating statistical data			
465.	<i>“Cumulative Distribution of Occupants with AIS 3+ Injuries by Delta V”</i> – Chart illustrating statistical data			
466.	<i>“Statistical Analysis”</i> – Other charts and tables of rear impact and occupant statistics			
467.	<i>“Exposure of Lap-Shoulder Belted Occupants to Rear Impacts”</i> – Chart illustrating statistical data, NASS-CDS 1994-2015 (SAE 2022-01-0835)			
468.	<i>“Acceleration Comparison”</i> – Diagram comparing “soft” and “stiff” pulse for the same velocity change			
469.	<i>“Collision Severity – Pulse Comparison”</i> – Data plot comparing “soft” and “stiff” pulses for the same velocity change			
470.	<i>“Impact Energy Moderation – Frontal and Rear-End Collisions”</i> – Video depicting occupant energy moderation in frontal and rear-end collisions (video)			
471.	GDS vehicle and seat photographs, notes, video and scan data	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		
472.	GDS exemplar vehicle and seat inspection photographs, notes and scan data	Objection to the extent any of these exhibits have not been produced to Plaintiffs.		

EX #		OBJECTIONS	OFFERED	ADMITTED
		Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		
473.	Seat pull test photographs, video, reports and data			
474.	NHTSA Docket 89-20			
475.	Daniel E. Toomey, Ph.D., P.E. CV – for ID			
476.	Daniel E. Toomey, Ph.D., P.E. Report – for ID			
477.	DRE Subject Vehicle Inspection 11/17/23 (photos 1-564)	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		
478.	DRE Subject Vehicle Inspection 4/2/24 (photos 1-141)	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		
479.	DRE Subject Vehicle Inspection 8/8/24 (photos 1-78)	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		
480.	Photos and Videos from Pretensioner Deployment 6/13/24	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		

EX #		OBJECTIONS	OFFERED	ADMITTED
481.	Figures: Accident Scene Physical Evidence			
482.	Figures: Injury Diagrams			
483.	Videos: Injury Demonstratives A-Spine Kinematics B-Mechanism C-Comparison	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		
484.	Figures: Subject Vehicle Physical Evidence			
485.	Figures: Exemplar Surrogate Analysis			
486.	Figures: Occupant Kinematics			
487.	Honda Odyssey Buck			
488.	Literature/References a. Ailon, T., Shaffrey, C.I., Lenke, L.G., Harrop, J.S., Smith, J.S., (2015) "Progressive Spinal Kyphosis in the Aging Population," Neurosurgery;77 Suppl 4:S164-72. 10.1227. b. Baker, L., Front Seat Extrication Tactics – Fire Rescue, Fire Rescue Magazine, March 2019. c. Burnett RA, Parenteau CS, White SD. The effect of seatback deformation on out-of-position front-seat occupants in severe rear impacts. Traffic Inj Prev. 2023;24(3):184-188. d. Davis, M., Isaacs, J., Graber, M., and Fisher, J., "Thoracic Spine Extension Injuries in Occupants with Pre-Existing Conditions during Rear-End Collisions," SAE Technical Paper 2019-01-1222, 2019 e. Hendrix, R., Melany, M., Miller, F., Rogers, L. Fracture of the spine in patients with ankylosis due to diffuse skeletal hyperostosis:	D488 contains ID only articles and papers and as such are inadmissible		

EX #		OBJECTIONS	OFFERED	ADMITTED
	<p>Clinical and imaging findings. American Journal of Roentgenology, 1994, 162(4): pp.899-904.</p> <p>f. Kalichman, L., Guermazi, A., et al. Association between age, sex, BMI, and CT-evaluated spinal degeneration features. Journal of Back and Musculoskeletal Rehabilitation, 2009, 22(4): pp. 189-195.</p> <p>g. Kang YC et al. Biomechanical Responses and Injury Assessment of Post Mortem Human Subjects in Various Rearfacing Seating Configurations, Stapp Car Crash Journal, Vol. 64 (November 2020), pp. 155-212.</p> <p>h. McGowan, J., Levitt, A., Corrigan, C., Burnett, R. et al., "Seatback Strength and Occupant Response in Rear Impact Crash: Observations with Respect to Large Occupant Size and Position," SAE Technical Paper 2010-01-1029, 2010.</p> <p>i. Mertz HJ, Irwin AL, Prasad P. Biomechanical and Scaling Basis for Frontal and Side Impact Injury Assessment Reference Values. Stapp Car Crash J. Nov;60:625-657, 2016.</p> <p>j. Myers, E. R. & Wilson, S. E. Biomechanics of osteoporosis and vertebral fracture. Spine 22(24), 25S-31S. https://doi.org/10.1097/00007632-199712151-00005 (1997).</p> <p>k. Parenteau CS, White S, Burnett R, Rear-End Impacts – Part 2: Sled Pulse Effect on Front-Seat Occupant</p>			

EX #		OBJECTIONS	OFFERED	ADMITTED
	<p>Responses. SAE 2022-01-0854, Society of Automotive Engineers, 2022.</p> <p>l. Parenteau, C., Viano, D., Burnett, R., Lau, E. Effect of ABTS and conventional seats on occupant injury in rear impacts: Analysis of field and test data. Traffic Injury Prevention, 2021, 22(2): pp.147-152.</p> <p>m. Parenteau, C., et al. Prevalence of spine degeneration diagnosis by type, age, gender, and obesity using Medicare data. Scientific Reports, 2021, 11:5389.</p> <p>n. Parenteau C, Miller B, Burnett R. Injury Rates by Crash Severity, Belt Use and Head Restraint Type and Performance in Rear Impacts 2020-01-1223, Society of Automotive Engineers, Warrendale PA, 2020.</p> <p>o. Parenteau CS, Viano DC. Spinal fracture-dislocations and spinal cord injuries in motor vehicle crashes. Traffic Inj Prev. 2014;15(7):694-700.</p> <p>p. Partyka S. Comparisons of Belt Effectiveness in Preventing Chest, Head and Face Injury in Front and Rear Impacts. August 1990.</p> <p>q. Rudd RW, Parenteau CS. Serious Spine Injuries Using 2017-2021 CISS and CIREN Data: Effect of Spinal Degeneration Comorbidities, IRCOB Conference, Cambridge UK, 2023.</p> <p>r. Viano DC, Parenteau CS. Injury by Delta V in Front, Near-Side, Far-Side and Rear Impacts: Analysis of 1994-2015 NASS-CDS. SAE</p>			

EX #		OBJECTIONS	OFFERED	ADMITTED
	<p>2022-01-0835, Society of Automotive Engineers, 2022.</p> <p>s. Viano et al. Dual-recliner ABTS Seats in Severe Rear Sled Tests with the 5th, 50th and 95th Hybrid III, SAE 2021-01-0917, Society of Automotive Engineers, 2021.</p> <p>t. Viano D, Parenteau C, White S. 2019. Influence of DISH, ankylosis, spondylosis and osteophytes on serious-to-fatal spinal fractures and cord injury in rear impacts. Warrendale (PA): Society of Automotive Engineers. SAE 2019-01-1028.</p> <p>u. Viano DC, Parenteau CS, Burnett R. Rebound after rear impacts. Traffic Inj Prev. 14(2):181-7, 2013.</p> <p>v. Viano DC. Fracture-Dislocation of the Thoracic Spine in Extension with Upright Seats in Severe Rear Crashes. SAE 2011-01-0274, Society of Automotive Engineers, Warrendale PA, 2011.</p> <p>w. Viano DC, Parenteau CS. BioRID Dummy Responses in Matched ABTS and Conventional Seat Tests on the IIHS Rear Sled. Traffic Injury Prevention, 2011.</p> <p>x. Viano DC, Parenteau CS, Burnett, R, James M. Influence of Seating Position on Dummy Responses with ABTS Seats in Severe Rear Impacts. SAE 2009-01-0250, Society of Automotive Engineers, Warrendale PA, 2009.</p> <p>y. Viano, D., Parenteau, C. Serious injury in very-low and very-high speed rear impacts. Proceedings of SAE World Congress and Exhibition, 2008, paper</p>			

EX #		OBJECTIONS	OFFERED	ADMITTED
	<p>2008-01-1485, Detroit, Michigan.</p> <p>z. Yaek, J., Brown, T., and Goertz, A., "Accident Statistical Distributions from NASS CDS - An Update," SAE Technical Paper 2020-01-0518, 2020, https://doi.org/10.4271/2020-01-0518.</p> <p>aa. Yoganandan, N., Ray, G., et al. Stiffness and strain energy criteria to evaluate the threshold of injury to an intervertebral joint. Journal of Biomechanics, 1989, 22: pp.135-142.</p> <p>bb. Zartman, D., "When and How to Safely Remove a Seat in an Automobile Extrication," Fire Rescue, https://www.firerescue1.com/fire-products/Extrication-Tools-Cutters-and-Spreaders/articles/393076018-When-and-how-to-safely-remove-a-seat-in-an-automobile-extrication/, 2018.</p> <p>cc. Zhou, Q., Rouhana, S., Melvin, J. Age effects of thoracic injury tolerance. Proceedings of the 40th Stapp Car Crash Conference, 1996, paper 962421, Albuquerque, New Mexico.</p>			
489.	Daniel L.A. Camacho, M.D., Ph.D. CV-for ID			
490.	Daniel L.A. Camacho, M.D., Ph.D. Report- for ID			
491.	Annotated slides with excerpts from literature articles cited below, James Assey medical records, photos, radiology studies including 3-D reconstructions of radiology images			
492.	Pertinent Radiological Findings a. Figure 1 b. Figure 2			

EX #		OBJECTIONS	OFFERED	ADMITTED
	c. Figure 3 d. Figure 4 e. Figure 5 f. Figure 6 g. Figure 7 h. Figure 8 i. Figure 9 j. Figure 10 k. Figure 11 l. Figure 12 m. Figure 13 n. Figure 14 o. Figure 15 p. Figure 16 q. Figure 17 r. Figure 18 s. Figure 19 t. Figure 20 u. Figure 21 v. Figure 22 w. Figure 23 x. Figure 24 y. Figure 25			
493.	Literature a. Davis M, Isaacs J, et al. (2019), "Thoracic Spine Extension Injuries in Occupants with Pre-Existing Conditions during Rear-End Collisions." SAE Technical Paper 2019-01-1222. b. Denis F (1984), "Spinal Instability as Defined by the Three-Column Spine Concept in Acute Spinal Trauma." <i>Clinical Orthopaedics and Related Research</i> 189:65-76. c. Denis F, Burkus FJ (1992), "Shear Fracture-Dislocations of the Thoracic and Lumbar Spine Associated with Forceful Hyperextension (Lumberjack Paraplegia)." <i>Spine</i> 17(2):156-161. d. Fon GT, Pit MJ, Thies AC (1980), "Thoracic Kyphosis: Range in Normal Subjects."	D493 contains ID only articles and papers and as such are inadmissible		

EX #		OBJECTIONS	OFFERED	ADMITTED
	<p><i>American Journal of Roentgenology</i> 134:979-983.</p> <p>e. Jang S, Graffy PM, et al. (2019), “Opportunistic Osteoporosis Screening at Routine Abdominal and Thoracic CT: Normative L1 Trabecular Attenuation Values in More than 20 000 Adults.” <i>Radiology</i> 291:360-367.</p> <p>f. Liebsch C, Seiffert T, et al. (2019), “Patterns of Serial Rib Fractures After Blunt Chest Trauma: An Analysis of 380 Cases.” <i>PLoS ONE</i> 14(12):e0224105.</p> <p>g. May DA, Disler DG, Jones EA, Balkissoon AA, Manaster BJ (2000), “Abnormal Signal Intensity in Skeletal Muscle at MR Imaging: Patterns, Pearls, and Pitfalls.” <i>Radiology</i> 20:S295-S315.</p> <p>h. Palmer WE, Kuong SJ, Elmadbouh HM (1999), “MR Imaging of Myotendinous Strain.” <i>American Journal of Radiology</i> 173:703-709.</p> <p>i. Parenteau CS, Viano DC, Campbell IC (2022), “Occupant Age and Size Characteristics by Seating Location in Tow-Away Crashes Involving Light Vehicles in the United States.” <i>Proceedings of the 2022 IRCOB Conference</i> Paper IRC-22-76</p> <p>j. Pickhardt PJ, Pooler BD, et al. (2013), “Opportunistic Screening for Osteoporosis Using Abdominal Computed Tomography Scans</p>			

EX #		OBJECTIONS	OFFERED	ADMITTED
	<p>Obtained for Other Indications.” <i>Ann Intern Med</i> 158(8):588-595.</p> <p>k. Rudd RW, Parenteau CS (2023), “Serious Spine Injuries Using 2017-2021 CISS and CIREN Data: Effect of Spinal Degeneration Comorbidities.” <i>Proceedings of the 2023 IRCOB Conference Paper</i> IRC-23-10</p> <p>l. Shah NG, Keraliya A, et al. (2019), “Injuries to the Rigid Spine: What the Spine Surgeon Wants to Know,” <i>Radiographics</i> 39:449-466.</p> <p>m. Takhtani D, Scortegagna E, Cataltepe O, Dundamadappa S (2016), “MRI Findings of Injury to the Longus Colli Muscle in Patients with Neck Trauma.” <i>American Journal of Roentgenology</i> 207:401-405.</p> <p>n. Viano D, Parenteau C, White S (2019), “Influence of DISH, Ankylosis, Spondylosis and Osteophytes on Serious-to-Fatal Spinal Fractures and Cord Injury in Rear Impacts,” SAE Technical Paper 2019-01-1028.</p> <p>o. Westerveld LA, Verlaan JJ, Oner FC (2009), “Spinal Fractures in Patients with Ankylosing Spinal Disorders: A Systematic Review of the Literature on Treatment, Neurological Status and</p>			

EX #		OBJECTIONS	OFFERED	ADMITTED
	Complications.” <i>Eur Spine J</i> 18:145-156. p. Zhuge W, Ben-Galim P, Hipp JA, Reitman CA (2015), “Efficacy of MRI for Assessment of Spinal Trauma: Correlation with Intraoperative Findings. <i>Journal of Spinal Disorders</i> 28(4):147-151			
494.	Plastic physical model of head and spine			
	<i>James Assey medical records</i>			
495.	Prisma Health Richland records	000001-004610 Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		
496.	Prima Health Urology records	000001-000285 Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		
497.	Prisma Heath Imaging records	Objection to the extent any of these exhibits have not been produced to Plaintiffs. Plaintiffs request these exhibits be produced for review and consideration prior to their use at trial		
498.	Medshore Ambulance records	000001-000020 Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		
499.	Richland County EMS records	000001-000009 Objection to the extent these medical records contain inadmissible hearsay, are		

EX #		OBJECTIONS	OFFERED	ADMITTED
		cumulative, or are irrelevant		
500.	Palmetto Baptist RAD	Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		
501.	All Medical Inc.	000001-000281 Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		
502.	Amedisys Home Health Records	MR_Assey_Meds003205 Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		
503.	Atrium Health Carolinas Rehab Records	MR_Assey_Meds005472 Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		
504.	Bright Star Care of Columbia	MR_Assey_Meds005547 Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		
505.	Columbia Medical Associates	Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		
506.	Columbia Gastrological Associates	000001-000017 Objection to the extent these medical records contain inadmissible		

EX #		OBJECTIONS	OFFERED	ADMITTED
		hearsay, are cumulative, or are irrelevant		
507.	Doctors Care	000001-000036 Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		
508.	Hand and Hearts Home Care	MR_Assey_Meds004654 and MR_Assey_Meds006090 Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		
509.	MUSC Health Columbia Heart records	000001-000195 Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		
510.	MUSC Health primary Gateway records	000001-000097 Objection to the extent these medical records contain inadmissible hearsay, are cumulative, or are irrelevant		